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United States Environmental Protection Agency
Docket ID No.EPA-HQ-OW-2007-1126
EPA Docket Center (EPA/DC)
Water Docket, MC 2822T
1200 Pennsylvania Avenue, NW
Washington, DC 20460

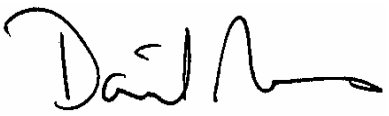
Re: Draft Gulf Hypoxia Action Plan for Reducing, Mitigating, and Controlling Hypoxia in the Northern Gulf of Mexico and Improving Water Quality in the Mississippi River Basin
Comments—World Resources Institute

Dear Members of the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force:

Thank you for the opportunity to comment on the Draft Gulf Hypoxia Action Plan 2008. This Draft Plan is noteworthy for its breadth in terms of both process and policy—two areas where the World Resources Institute has had substantial on-going interest over the years. WRI is currently analyzing policies and frameworks to restore coastal ecosystems, evaluating the environmental impacts of economic and land use drivers such as ethanol production, and supporting the efforts of state and local leaders as they consider options for economy wide greenhouse gas reductions. Our work to achieve environmental goals through pragmatic policy solutions can inform the development of an effective Action Plan.

The following comments and recommendations are based on our experience working with policy makers to achieve environmental goals through U.S. federal, state, and local regulatory frameworks. As you consider our comments, please feel free to contact us with questions or to request additional information and analysis.

Best regards,



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DRAFT GULF HYPOXIA ACTION PLAN 2008.

Comments—World Resources Institute

General comments

The Draft Plan generally encompasses all necessary components of a viable Gulf of Mexico restoration initiative. The strong emphasis on adaptive management is absolutely necessary given the breadth of relevant regulatory policies present in a geographic area as large as the Mississippi-Atchafalaya River Basin (MARB). However, even with an adaptive management approach in place, the real challenge to Gulf restoration lies in the region's existing institutional framework. The Task Force serves solely as a work group, and lacks the dedicated staff and resources as well as a mandate to enable it to be more effective at coordinating state and federal actions, compiling and analyzing data, addressing research needs, and serving as a forum for solutions. No such organization exists for the MARB as it does for the Chesapeake Bay. There, the Chesapeake Bay Program functions as the focal point for restoration efforts. Conversely, the Gulf of Mexico Program comprises only Gulf States and views hypoxia as a periphery issue.

The Task Force should consider this institutional need as its members finalize the 2008 Action Plan. Nonetheless, the Action Plan does provide constructive guidance for MARB jurisdictions as they seek to reverse nutrient loading to the Mississippi-Atchafalaya River System.

Specific comments, questions, and suggestions

An upcoming WRI report, *Eutrophication: An Overview of Status, Trends, Policies, and Strategies*, identifies six recommendations for addressing the Gulf of Mexico hypoxic zone.[1] These recommendations, based on our independent analysis, include:

1. Integrate hypoxia issues with local environmental resource concerns;
2. Establish and enforce clear and consistent regulatory frameworks;
3. Adopt performance-based mechanisms to allocate local, state, and federal spending;
4. Explore private, state and local financing opportunities;
5. Build and improve institutional capacity and leadership in the Task Force and other relevant organizations; and,
6. Improve accountability of the federal, state and local governments to meet nutrient reduction goals.

The following comments, questions, and suggestions are provided within the context of these six recommendations.

[1] In this report to be released February, 2008, a Gulf of Mexico case study is included as an appendix. WRI offers recommendations specifically for Gulf of Mexico restoration effort, which inform broader policy recommendations for addressing eutrophication throughout the world.

1. PAGE 4, PRINCIPLE 1:
In principle, voluntary actions may be the preferred means for achieving nutrient load reductions. In practice, however, they often fail to motivate agricultural and industrial sectors to reduce their nutrient discharges. Language in Principle 1 should be changed to reflect this.

Regulatory limits have been the successful drivers behind many of the efforts to reduce eutrophication and hypoxia in the United States. Though voluntary efforts are often the preferred option for reducing nutrient losses to waterways, especially given the lack of regulatory options associated with non-point sources of nutrient emissions, to date they have had little or no tangible success. For example, the Chesapeake 2000 Agreement, signed by all Governors of the states within the watershed and the mayor of the District of Columbia, sets voluntary Bay restoration goals to be achieved by 2010. While the strategies have spurred action in their respective statehouses, their voluntary limits recently lead Maryland Governor Martin O'Malley to confess "We're not going to hit it (the environmental goal) by 2010, not on water quality, not on nutrient reduction, not on sediment issues, but we are all doing more..."[2]

Conversely, some mandatory or regulatory approaches have successfully achieved or contributed to the achievement of nutrient reduction goals:

- Everglades Forever Act (EFA): Passed by the Florida Legislature, the EFA requires farms to obtain permits before they can discharge agricultural runoff into canals draining to the Everglades. In addition, all farms operating within the Everglades Agricultural Area must pay a tiered tax containing incentives for phosphorous reduction. Since inception of the permit and tax requirements in 1996, the basin has exceeded its 25% reduction goal every year.[3]
- Maryland Water Quality Improvement Act (WQIA): The WQIA, passed into law in 1998, requires all agricultural operations in the state that gross over $2,500 to develop and adhere to a nutrient management plan that addresses both nitrogen and phosphorous. The state will reimburse farmers for the cost of hiring a consultant to complete the plan. Currently 95% of the state's 6,300 eligible farmers are in compliance with the law, which covers 97% of the state's 1.3 million acres of crop land.[4]
- Long Island Sound (LIS) Nutrient Trading: In 2001, a federal Total Maximum Daily Load (TMDL) required revisions to National Pollutant Discharge Elimination System (NPDES) permits for point sources operating in the LIS watershed. The state developed a nutrient trading framework to achieve this

[2] Green, Andrew A. 2007. "2010 Goals Out of Reach" *Baltimore Sun* (December 6).
[3] Hoffman, S. and J. Boyd. 2006. *Environmental Fees: Can Incentives Help Solve the Chesapeake's Nutrient Pollution Problems?* Washington, D.C., Resources for the Future.
[4] Maryland Department of Agriculture. 2007. "Nutrient Management Plan Writing and Certification Public Service Announcement." Online at: http://somd.com/announcements/psa/index.cgi/noframes/read/2961.

goal in 2002, which resulted in a reduction of 10,386 equivalent pounds of nitrogen per day from the 29 participating facilities by 2004.[5]

Further, some of the most meaningful options for reducing nutrient pollution are already required by law. States that establish water quality standards as required in the Clean Water Act can then consider innovative policy solutions that raise revenue while achieving nutrient reduction goals. In the Gulf of Mexico, however, one hurdle to this approach is the structure of the Clean Water Act. Coastal water quality does not fall within the purview of the CWA, so the main driver must be shifted away from the hypoxic zone and into the main stem of the Mississippi River. As it is understandably challenging to implement standards for the main stem, the emphasis could be shifted to the tributaries.

2. PAGE 4, PRINCIPLE 4:
The process of identifying funding needs and sources should not be limited to the Environmental Protection Agency (EPA). This language could be changed to reflect the need for additional funding from all relevant agencies including the Department of Agriculture, Army Corps of Engineers, Department of the Interior, and other members of the Task Force. Additionally, Principle 4 could mention a need for financing innovation at the local and state levels.

It is unclear from the language of Principle 4 if "Agency" refers to one federal agency or to the entire federal budget process. If it is just one agency, we assume it is the EPA. In actuality, all federal agencies within the MARB should contribute to the restoration effort.

However, federal agencies should only be partially responsible for financing the restoration effort. Individual MARB jurisdictions should also be responsible for enacting financing procedures that raise funds for water quality. These should be developed with the Gulf in mind regardless of the location of the jurisdiction within the watershed.

Chesapeake Bay jurisdictions have successfully done this. In July 2007, the Pennsylvania legislature approved, and the Governor signed, the Resource Enhancement and Protection Act of Pennsylvania. Even though they are a state removed from the Chesapeake Bay, this innovative tax credit program will provide Pennsylvania farmers with $450 million in tax credits over five years to implement agricultural best management practices (BMPs) that impact water quality in the Bay. Maryland, a state much more impacted by the health of the Bay, has been even more progressive. The Chesapeake and Atlantic Coastal Bays Restoration Fund (i.e. "flush tax") raises $72 million annually through a $2.50 per month per home fee regardless of the amount of nutrients they contribute.[6] These funds are used to upgrade wastewater treatment plants (WWTPs), retrofit septic systems with best

[5] Connecticut Department of Environmental Protection. 2005. "General Permit for Nitrogen Discharges and Nitrogen Credeit Exchange Program." Online at:
http://www.envtn.org/ETN_workshop/Presentations/Dubay/LIS_permit_factsheet_2005.pdf.
[6] Maryland Department of the Environment. Date Unknown. "Bay Restoration Fund (Senate Bill 320)." Online at http://www.mde.state.md.us/water/CBWRF/index.asp.

available technology, and finance agricultural BMPs. In addition, Maryland policy makers have also established another recent fund. The Chesapeake Bay Trust Fund will provide $50 million to finance non-point source reduction efforts.

3. PAGE 5, CRITICAL NEEDS:
State action is often uncoordinated, and advancements are conditions of happenstance as much as targeting toward Gulf restoration. More broadly, natural resource and land management decisions in individual MARB jurisdictions should consider the impact on the Gulf. This should be noted in the Critical Needs section.

New regulatory frameworks for dealing with climate change, Farm Bill programs and projects, and potential changes to the Clean Water Act could impact the MARB over the next five years (until expected release of the next Action Plan). Some of these changes will be positive, such as the possible implementation of greater numbers of BMPs in order to sequester carbon dioxide for use in greenhouse gas cap-and-trade programs. Some impacts, however, may be negative. The movement of corn production into highly erodible land as a result of increased demand for ethanol is one example. These changes will have major impacts on the Mississippi River and the subsequent hypoxic zone. State environmental agencies should make both intra- and inter-state decisions while considering their impact on the Gulf.

The federal government can promote and facilitate coordination among the states. It is crucial to begin by targeting federal funding to high priority areas within the MARB that are responsible for the bulk of nutrient pollution. One way to do this is to target cost-share funding through programs such as the Environmental Quality Incentives Program. USDA can provide guidance to state Natural Resource Conservation Service offices as to where the greatest environmental impact can be achieved at least cost. This can be done effectively through performance based mechanisms such as reverse auctions.[7]

4. PAGE 17, ACTIONS TO ACCELERATE REDUCTION 1:
The section on modifying plans to protect local water quality while also reducing Gulf loadings is especially important. This should be mentioned earlier in the Plan if possible.

5. PAGE 18, ACTIONS TO ACCELERATE REDUCTION 1:
Numeric water quality standards are the main drivers of innovative nutrient reduction policy frameworks. Developers of the final Action Plan should consider giving this point more attention.

6. PAGE 24, ACTION TO ACCELERATE REDUCTION 5:
Action 5 offers a good example of the need for one central, coordinating institution. This institution should be tasked with collecting and organizing all available data, and making

[7] In a reverse auction, sellers compete to supply a buyer with a good or service, as opposed to a standard auction where buyers compete for the good or service of a seller. Two reverse auctions were conducted in Pennsylvania's Conestoga Watershed to demonstrate the effectiveness of using them to allocate limited conservation funding. For details on this reverse auction, see *Paying for Environmental Performance: Using Reverse Auctions to Allocate Funding for Conservation*, available at http://www.wri.org/policynotes.

it available to policy makers and the public through a coordinated communications effort (e.g., websites). If it is not possible or feasible to develop one coordinated body, a central information repository should be developed at the bare minimum. One agency should take the responsibility for maintaining the repository, but all agencies or partners should be required to share their information through it.

Additionally, opportunities should be explored for academic and research institutions to share their information through the same repository.

7. PAGE 25, ACTION TO ACCELERATE REDUCTION 6:
It is difficult to track progress on the actions to reduce nitrogen and phosphorous in the absence of one coordinated central body. Policy makers should consider establishing a reporting registry for agricultural BMPs, and this information should be held in the centralized repository. The need for such a registry could be mentioned in Action 6.

Something similar is occurring in Pennsylvania. The state is developing an online BMP registry and tracking system that provides the geographic locations of agricultural BMPs. The Water Attribute Viewer for the Enterprise (WAVE) will serve as an interface for users to view locations of non-point source BMPs projects in the state. In so doing, it is hoped that the program will eliminate conflicting reports on the achievements of BMP implementation and impact.

8. PAGE 28, ACTION TO ACCELERATE REDUCTION 9:
In addition to improved communications among the many MARB jurisdictions, communications should be improved within the agencies operating in each state. For example, some states may offer tax credits or subsidize industries that threaten water quality. These industries may include extraction and trucking, which harm water quality through acid drainage, heavy metal runoff and air deposition of nitrogen. These incentives and perverse subsidies should be reconsidered through the collaborative efforts of state environment, transportation, agriculture, and other relevant agencies.